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EXAMINER

MA, JOHNNY

ART UNIT	PAPER NUMBER
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2614

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10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/517,818

Applicant(s)

OZ ET AL.

Examiner

Johnny Ma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 April 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5,7,8 and 23-39 is/are pending in the application.
- 4a) Of the above claim(s) 1,4,6 and 9-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,7,8 and 23-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 2, 3, 5, 7, 8, and 23-39 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant argues one would still not obviate the present invention because the combined teachings would still not be the patentable feature of a method or system in which selected data sets representing information elements for display to a user during switching events are periodically downloaded from a server transmission according to user profile information. The Picco et al. reference also discloses periodically downloading from a server selected data sets where the uplink facility 102 may include a database 146 that stores the local content. The local content database may store a plurality of pieces of local content such as a plurality of advertisements (Picco et al. 6:58-61). The scheduler may determine which local content is going to be combined by the combiner 140 with the live feeds based on a variety of information (Picco et al. 7:9-12). The private data may include the compressed local content, as described above, which may be transmitted to each set-top box using several different transmission strategies, as described below (Picco et al. 8:29-32). The private data may be downloaded to each set-top box by a trickle, i.e., background, download technique, a nightly download technique or a dual receiver technique (Picco et al. 9:1-3).

### ***Claim Rejections - 35 USC § 103***

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23, 2, 3, 8, 24-31, 34, 35, 36, and 39 rejected under 35 U.S.C. 103(a) as being unpatentable over Grossman et al. (US 5,907,321) in further view of Picco et al. (US 6,029,045) and Kitsukawa et al. (US 6,282,713)..

As to claim 23, the claimed periodically downloading from a server selected data sets according to user profile information, the selected data sets representing information elements for display to a user during switching events; displaying a first one of the information elements in response to initiation of a first switching event; and discontinuing the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display, unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements in which case displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user. The Grossman et al. reference discloses a method for transmitting and displaying an interchannel interval image in a cable system where in addition to receiving a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 44 for access and display at a later time (Grossman et al. 8:22-25). The advertising information transmitted by cable headend 12 to cable subscriber systems 16a-n can be scheduled at the cable headend

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according to date and according to time of day (Grossman et al. 8:28-31). Although, the Grossman et al. reference does not specifically disclose periodic downloads from a server, it is nevertheless inherent to the device. The Grossman et al. reference also discloses in the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:41-45). When a user of conventional subscriber unit channels there is normally a brief delay period between the displays of sequentially displayed channels on the television receiver of the conventional subscriber unit. The delay period can typically have a duration of approximately three hundred milliseconds to approximately five hundred milliseconds and is some-times referred to as the interchannel interval (ICI). In the preferred embodiment of the present invention the visual image from the cable headend is displayed on television receiver 30 during the ICI (Grossman et al. 3:46-55). The Grossman et al. reference also discloses for example, the header information associated with an image can include the duration and frequency of display of the image as well as identification information. The identification information can include telephone, address, internet address, web page address, facsimile or telex information associated with an advertiser. The identification information can be stored in a first-in, first-out stack in RAM 44 for access by means of remote control device 20 with a personal computer or by means of computer access line 50 (Grossman et al. 7:49-60). However, the Grossman et al. reference does not specifically disclose selected data sets according to user profile information, periodically downloading from a server selected data sets and an interactive transaction session. The Picco et al. reference discloses selected data sets according to user profile information where in accordance with the

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invention, the pieces of local content downloaded to the set-top box may have a plurality of different content profiles and only the pieces of local content with content profiles that match some predetermined criteria stored in the set-top box are stored in the set-top box (Picco et al. 8:10-15) where the Picco et al. reference discloses local content such as advertisements (Picco et al. 6:60-61).. The Picco et al. reference also discloses periodically downloading from a server selected data sets where the uplink facility 102 may include a database 146 that stores the local content. The local content database may store a plurality of pieces of local content such as a plurality of advertisements (Picco et al. 6:58-61). The scheduler may determine which local content is going to be combined by the combiner 140 with the live feeds based on a variety of information (Picco et al. 7:9-12). The private data may include the compressed local content, as described above, which may be transmitted to each set-top box using several different transmission strategies, as described below (Picco et al. 8:29-32). The private data may be downloaded to each set-top box by a trickle, i.e., background, download technique, a nightly download technique or a dual receiver technique (Picco et al. 9:1-3). The Kitsukawa et al. reference discloses a method and apparatus for providing on-demand electronic advertising where according to one aspect of the invention, coupon information is provided for items comprising products and services. The products and services may be used in scenes of live and prerecorded television programs and live and prerecorded television commercials, wherein the scenes comprise currently displayed scenes, previously displayed scenes, and scenes that are to be displayed in the future, but the embodiment is not so limited (Kitsukawa et al. 10:43-50). The Kitsukawa et al. reference also discloses coupon information for a particular item may be selected, or requested, when the viewer selects the indicator corresponding to the item in which

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the viewer is interested (Kitsukawa et al. 11:15-18). If coupon information is selected for display by the viewer, operation continues at step 812, at which the full coupon information is displayed on the display along with the broadcast of the currently selected television program (Kitsukawa et al. 11:20-25). In an alternate embodiment, the coupon information is redeemed by the viewer via an electronic link established with a merchandise retailer to read the stored coupon information from the recording medium of the viewer at such time as the viewer electronically orders or purchases merchandise (Kitsukawa et al. 12:1-7). Particularly, the claimed "displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user" is met by the combination of the Grossman et al. and Kitsukawa et al. references where the Kitsukawa et al. discloses the coupon information may be displayed by superimposing the information over the broadcast of the television program on the screen (Kitsukawa et al. 11:24-26) where a delay of the display of the data stream information until termination of the interactive transaction would be inherent since the coupon information would obstruct program display until display of coupon information is completed. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. use of zap time with the Picco et al. local content downloads according to user profile and the Kitsukawa et al. interactive session for the purpose of providing advertisements during delay time that fit a viewers preferences in addition to offering the convenience of readily accessible supplementary information or direct purchasing to the viewer.

As to claim 2, the claimed wherein downloading the selected data sets comprises storing the selected data sets in buffer of a digital set top box. The Grossman et al. reference discloses

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cable subscriber systems 16a-n of cable television system 10 also include respective subscriber units 24a-n. Subscriber units 24a-n receive the television channels from cable headend 12, and, under the control of remote control device 20, select a television channel from the received channels (Grossman et al. 3:20-25). The Grossman et al. reference also discloses the signals representative of the visual image transmitted from cable headend 12 can be analog or digital signals, although digital signals are preferred (Grossman et al. 6:55-57). The Grossman et al. reference also discloses if the visual image is to be displayed the signals representative of the image are applied from RAM 44 to graphics generator 68 by way of bus 66 to be formatted for display on television receiver 30. Although the signals representative of the image are preferably stored in RAM 44 in this manner for later display, the signals can be immediately displayed when they are received by tuner 72 in an alternate embodiment of the invention (Grossman et al. 7:5-12).

As to claim 3, the claimed wherein initiation of the first switching event comprises receiving at the digital set top box a signal from a television remote control device to switch channels. The Grossman et al. reference discloses in the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:40-44).

As to claim 8, the claimed wherein the first information element comprises advertising data selected in accordance with the user profile information. See rejection of claim 23.



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As to claim 24, the claimed wherein downloading the selected data sets comprises storing the selected data sets in a digital set top box in which the user profile information is stored. See rejection of claim 23.

As to claims 25 and 26, the claimed wherein the user profile information is stored at the server and wherein the user profile information is stored in a data source accessible by the server. The Grossman et al. reference discloses storing interchannel messages. However, the Grossman et al. reference does not specifically disclose the use of profile information. The Picco et al. reference discloses the statistical collector system may collect all of the data from every household that uses the satellite-based system and then generates statistics about the data, such as the number of users that have viewed a particular advertisement or the number of users that viewed a particular type of advertisement. The statistics generated are fed into the agent 150. The agent 150, based on the statistics, may output the statistics or use the statistics to entice new advertisers to provide local content. The results of the agent may also be sold to outside companies, such as an advertisement agency. The agent may also be programmed to select particular local content based on the statistics. Based on the various information, the scheduler then determines the local content that is going to be transmitted by the satellite (Picco et al. 7:18-32). The Picco et al. reference also discloses transmitting the user profile data to the system operator at some predetermined interval (Picco et al. 10:57-58) where a copy of the user profile is stored both on the set top box and head end. However, the Picco et al. reference is silent as to profile information stored on a data source accessible by the server. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art to store profile information at an external source accessible by a headend such as a external user profile database in order to

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provide a centralized storage of user profile information. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. reference accordingly for the purpose of providing targeted interchannel messages where the profile is stored in a location other than the set top box to broadcast local content that may be of interest to a wider audience using user statistics.

As to claim 27, the claimed wherein the data stream information is also stored in the data source. The Grossman et al. reference discloses cable headend 12 uses transmission cable 14 to apply television channels containing television signals to a number of cable subscriber systems 16a-n for display upon television receivers 30 within cable subscriber systems 16a-n (Grossman et al. 3:2-6). As submitted in the rejection for claim 26, the Picco et al. reference discloses the statistical collector system may collect all of the data from every household that uses the satellite-based system and then generates statistics about the data, such as the number of users that have viewed a particular advertisement or the number of users that viewed a particular type of advertisement. The statistics generated are fed into the agent 150. The agent 150, based on the statistics, may output the statistics or use the statistics to entice new advertisers to provide local content. The results of the agent may also be sold to outside companies, such as an advertisement agency. The agent may also be programmed to select particular local content based on the statistics. Based on the various information, the scheduler then determines the local content that is going to be transmitted by the satellite (Picco et al. 7:18-32). The Picco et al. reference also discloses transmitting the user profile data to the system operator at some predetermined interval (Picco et al. 10:57-58) where a copy of the user profile is stored both on the set top box and head end. However, the Picco et al. reference is silent as to profile

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information stored on a data source accessible by the server. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art to store profile information at an external source accessible by a headend such as a external user profile database in order to provide a centralized storage of user profile information. Furthermore, the examiner gives Official Notice that it is notoriously well known in the art to store programming in a data source so that it may be readily available for broadcast. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. reference accordingly for the purpose of providing targeted interchannel messages where the profile is stored in a location other than the set top box to broadcast local content that may be of interest to a wider audience using user statistics and where programming data is readily accessible by headend for broadcasting in a well known manner.

As to claim 28, the claimed wherein the remote host comprises an Internet host and the interactive transaction session comprises an electronic shopping transaction. The Grossman et al. reference discloses the identification information can include telephone, address, internet address, web page address, facsimile or telex information associated with an advertiser. The identification information can be stored for the most recently displayed images in order to permit later access by the user (Grossman et al. 7:51-56). However, Grossman et al. reference does not disclose an Internet host and the interactive transaction session comprises an electronic shopping transaction. The Kitsukawa et al. reference discloses in an alternate embodiment, the coupon information is redeemed by the viewer via an electronic link established with a merchandise retailer or dealer, wherein the electronic link allows the merchandise retailer to read the stored coupon information from the recording medium of the viewer at such time as the viewer

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electronically orders or purchases merchandise (Kitsukawa et al. 12:1-7). The Kitsukawa et al. reference also discloses in one embodiment, the coupon information may comprise electronic catalogs that contain information on additional products and service offered by the particular manufacturer and dealer and service provider, electronic links to product manufacturers and dealers that comprise electronic mail and voice messaging links, and electronic links over the Internet to the Web pages of product manufacturers and dealers, but the embodiment is not so limited (Kitsukawa et al. 13:23-31). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. interchannel advertising with the Kitsukawa et al. electronic transaction over the Internet for the purpose of providing the user the capability of purchasing an advertised product immediately and to increase sales of an advertised product or service.

As to claim 29, the claimed wherein the user profile information is based on one or more of: the user's television viewing habits, the user's purchasing habits, and the user's use of one or more television services. The Grossman et al. reference discloses a method for displaying interchannel messages. However, the Grossman et al. reference does not disclose the use of profile information. The Picco et al. reference discloses targeting advertisements using profile information where in accumulating additional user preference data, the set-top box may accumulate data about when the user saw which programs and how many times the user watched a particular program (Picco et al. 11:9-13). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. interchannel messages with the Picco et al. targeted advertisements and

monitoring of viewing habits for the purpose of enabling the targeting of interchannel advertisements to a user so that user may view messages of interest.

As to claim 30, the claimed wherein the information elements comprise one or more of: advertisement, information regarding the data stream information, information regarding a television program, information regarding a television channel, personal information regarding the user, a segment of the data stream information, or local or regional information. The Grossman et al. reference discloses the advertising information from cable headend 12 can be any information of any commercial value, such as a corporate logo, a trademark or a textual message. The advertising information can also be, for example, public service messages such as warnings against smoking, warnings against drinking while pregnant or reminders to immunize children. In the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:35-45).

As to claim 31, the claimed server configured to provide a data stream transmission; and a digital set top box configured to (i) periodically download from the server selected data sets according to user profile information, the selected data sets being included within the data stream and representing information elements for display to a user during switching events; (ii) display a first one of the information elements in response to initiation of a first switching event; and (iii) discontinue the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display, unless the user has initiated an interactive transaction session with a remote host by selecting an interactive

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element associated with the first one for the information elements in which case displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user. The Grossman et al. reference discloses a method for transmitting and displaying an interchannel interval image in a cable system where in addition to receiving a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 44 for access and display at a later time (Grossman et al. 8:22-25). The advertising information transmitted by cable headend 12 to cable subscriber systems 16a-n can be scheduled at the cable headend according to date and according to time of day (Grossman et al. 8:28-31). The Grossman et al. reference also discloses a digital set top box where the signals representative of the visual image transmitted from cable headend 12 can be analog or digital signals, although digital signals are preferred (Grossman et al. 6:55-57). Although, the Grossman et al. reference does not specifically disclose periodic downloads from a server, it is nevertheless inherent to the device. The Grossman et al. reference also discloses in the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:41-45). When a user of conventional subscriber unit channels there is normally a brief delay period between the displays of sequentially displayed channels on the television receiver of the conventional subscriber unit. The delay period can typically have a duration of approximately three hundred milliseconds to approximately five hundred milliseconds and is some-times referred to as the interchannel interval (ICI). In the preferred embodiment of the present invention the visual image from the cable headend is

displayed on television receiver 30 during the ICI (Grossman et al. 3:46-55). The Grossman et al. reference also discloses for example, the header information associated with an image can include the duration and frequency of display of the image as well as identification information. The identification information can include telephone, address, internet address, web page address, facsimile or telex information associated with an advertiser. The identification information can be stored in a first-in, first-out stack in RAM 44 for access by means of remote control device 20 with a personal computer or by means of computer access line 50 (Grossman et al. 7:49-60). However, the Grossman et al. reference does not specifically disclose selected data sets according to user profile information, a server configured to provide a data stream transmission, periodically downloading from a server selected data sets and an interactive transaction session. The Picco et al. reference discloses selected data sets according to user profile information where in accordance with the invention, the pieces of local content downloaded to the set-top box may have a plurality of different content profiles and only the pieces of local content with content profiles that match some predetermined criteria stored in the set-top box are stored in the set-top box (Picco et al. 8:10-15) where the Picco et al. reference discloses local content such as advertisements (Picco et al. 6:60-61).. The Picco et al. reference also discloses periodically downloading from a server selected data sets where the uplink facility 102 may include a database 146 that stores the local content. The local content database may store a plurality of pieces of local content such as a plurality of advertisements (Picco et al. 6:58-61). The scheduler may determine which local content is going to the combiner 140 with the live feeds based on a variety of information (Picco et al. 7:9-12). Note, that scheduler serves local content and data streams where the server is inherently configured. The

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private data may include the compressed local content, as described above, which may be transmitted to each set-top box using several different transmission strategies, as described below (Picco et al. 8:29-32). The private data may be downloaded to each set-top box by a trickle, i.e., background, download technique, a nightly download technique or a dual receiver technique (Picco et al. 9:1-3). The Kitsukawa et al. reference discloses a method and apparatus for providing on-demand electronic advertising where according to one aspect of the invention, coupon information is provided for items comprising products and services. The products and services may be used in scenes of live and prerecorded television programs and live and prerecorded television commercials, wherein the scenes comprise currently displayed scenes, previously displayed scenes, and scenes that are to be displayed in the future, but the embodiment is not so limited (Kitsukawa et al. 10:43-50). The Kitsukawa et al. reference also discloses coupon information for a particular item may be selected, or requested, when the viewer selects the indicator corresponding to the item in which the viewer is interested (Kitsukawa et al. 11:15-18). If coupon information is selected for display by the viewer, operation continues at step 812, at which the full coupon information is displayed on the display along with the broadcast of the currently selected television program (Kitsukawa et al. 11:20-25). In an alternate embodiment, the coupon information is redeemed by the viewer via an electronic link established with a merchandise retailer to read the stored coupon information from the recording medium of the viewer at such time as the viewer electronically orders or purchases merchandise (Kitsukawa et al. 12:1-7). Particularly, the claimed "displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user" is met by the combination of the



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Grossman et al. and Kitsukawa et al. references where the Kitsukawa et al. discloses the coupon information may be displayed by superimposing the information over the broadcast of the television program on the screen (Kitsukawa et al. 11:24-26) where a delay of the display of the data stream information until termination of the interactive transaction would be inherent since the coupon information would obstruct program display until display of coupon information is completed. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. use of zap time with the Picco et al. local content downloads according to user profile and the Kitsukawa et al. interactive session for the purpose of providing advertisements during delay time that fit a viewers preferences in addition to offering the convenience of readily accessible supplementary information or direct purchasing to the viewer.

As to claim 34, the claimed wherein the digital set top box includes an interface configured to receive signals from a remote control unit, the signal representing initiation of the first switching event, which corresponds to changing channels. The Grossman et al. reference discloses in the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:41-45). The Grossman et al. reference also discloses in decision 90 a determination is made whether the received control signal from remote control device 20 is representative of a channel change command from the user (Grossman et al. 4:55-58).

As to claim 35, the claimed wherein the information elements comprise one or more of: advertisement, information regarding the data stream information, information regarding a television program, information regarding a television channel, personal information regarding the user, a segment of the data stream information, or local or regional information. The Grossman et al. reference discloses the advertising information from cable headend 12 can be any information of any commercial value, such as a corporate logo, a trademark or a textual message. The advertising information can also be, for example, public service messages such as warnings against smoking, warnings against drinking while pregnant or reminders to immunize children. In the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:35-45).

As to claim 36, the claimed wherein the digital set top box is further configured to store the user profile information. See rejection of claim 31.

As to claim 37 and 38, the claimed wherein the server is further configured to store the user profile information or further comprising a data store unit accessible by the server and configured to store the user profile information. The Grossman et al. reference discloses storing interchannel messages. However, the Grossman et al. reference does not specifically disclose the use of profile information. The Picco et al. reference discloses the statistical collector system may collect all of the data from every household that uses the satellite-based system and then generates statistics about the data, such as the number of users that have viewed a particular advertisement or the number of users that viewed a particular type of advertisement. The

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statistics generated are fed into the agent 150. The agent 150, based on the statistics, may output the statistics or use the statistics to entice new advertisers to provide local content. The results of the agent may also be sold to outside companies, such as an advertisement agency. The agent may also be programmed to select particular local content based on the statistics. Based on the various information, the scheduler then determines the local content that is going to be transmitted by the satellite (Picco et al. 7:18-32). The Picco et al. reference also discloses transmitting the user profile data to the system operator at some predetermined interval (Picco et al. 10:57-58) where a copy of the user profile is stored both on the set top box and head end. However, the Picco et al. reference is silent as to profile information stored on a data source accessible by the server. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art to store profile information at an external source accessible by a headend such as a external user profile database in order to provide a centralized storage of user profile information. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. reference accordingly for the purpose of providing targeted interchannel messages where the profile is stored in a location other than the set top box to broadcast local content that may be of interest to a wider audience using user statistics.

As to claim 39, the claimed wherein the data store unit is further configured to store the data stream information. The Grossman et al. reference discloses cable headend 12 uses transmission cable 14 to apply television channels containing television signals to a number of cable subscriber systems 16a-n for display upon television receivers 30 within cable subscriber systems 16a-n (Grossman et al. 3:2-6). As submitted in the rejection for claim 26, the Picco et

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al. reference discloses the statistical collector system may collect all of the data from every household that uses the satellite-based system and then generates statistics about the data, such as the number of users that have viewed a particular advertisement or the number of users that viewed a particular type of advertisement. The statistics generated are fed into the agent 150. The agent 150, based on the statistics, may output the statistics or use the statistics to entice new advertisers to provide local content. The results of the agent may also be sold to outside companies, such as an advertisement agency. The agent may also be programmed to select particular local content based on the statistics. Based on the various information, the scheduler then determines the local content that is going to be transmitted by the satellite (Picco et al. 7:18-32). The Picco et al. reference also discloses transmitting the user profile data to the system operator at some predetermined interval (Picco et al. 10:57-58) where a copy of the user profile is stored both on the set top box and head end. However, the Picco et al. reference is silent as to profile information stored on a data source accessible by the server. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art to store profile information at an external source accessible by a headend such as a external user profile database in order to provide a centralized storage of user profile information. Furthermore, the examiner gives Official Notice that it is notoriously well known in the art to store programming in a data source so that it may be readily available for broadcast. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. reference accordingly for the purpose of providing targeted interchannel messages where the profile is stored in a location other than the set top box to

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broadcast local content that may be of interest to a wider audience using user statistics and where programming data is readily accessible by headend for broadcasting in a well known manner.

5. Claims 5, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grossman et al. (US 5,907,321) in further view of Picco et al. (US 6,029,045) and Kitsukawa et al. (US 6,282,713) and Nathan et al. (US 6,182,126)..

As to claim 5, the claimed wherein downloading the selected data sets comprises storing those of the selected data sets associated with the first information element in a buffer of a digital set top box and storing others of the selected data sets associated with others of the information elements in a memory of the digital set top box, wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data in the buffer of the digital set top box once the first information element is displayed. The Grossman et al. reference discloses alternately, each of the images can be transmitted at the beginning of its period, stored for the duration of the period and written over by the next image at the beginning of the next period. In these embodiments, the user views whichever image is current when the channel is changed (Grossman et al. 8:6-10). The Grossman et al. reference also discloses in addition to receiving to receiving a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 44 for access and display at a later time (Grossman et al. 8:21-24). However, the Grossman et al. reference does not specifically disclose storing first information element in a buffer and others in a memory wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data in the buffer of the digital set top box once the first information element is displayed. The Nathan et al.

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reference discloses button (1038) allows ordering of the selection which is then downloaded according to the above-described mode (Nathan et al. 6:66-67). The Nathan et al. reference also discloses a SPM module allows the system to manage the musical song or video selections in the queue for their playback in the order of selection (Nathan et al. 8:22-24). The Nathan et al. reference also discloses audio and display buffers (Nathan et al.; Figure 2 “110,111”). The Nathan et al. reference discloses when the selection has been reproduced in its entirety, it is removed from the queue file and the system checks if there are others in the queue file. If there is another, the system immediately starts to play the selection (Nathan et al. 9:54-57).

Accordingly, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. storing of interchannel messages with the Nathan et al. queue using a memory and buffer for the purpose of displaying interchannel messages in order of receipt and a method for memory management.

As to claim 32, the claimed wherein the digital set top box includes both a buffer and a memory and is configured to store those of the selected data sets representing a first one of the information elements in the buffer and others of the selected data sets representing other information elements in the memory. The Grossman et al. reference discloses alternately, each of the images can be transmitted at the beginning of its period, stored for the duration of the period and written over by the next image at the beginning of the next period. In these embodiments, the user views whichever image is current when the channel is changed (Grossman et al. 8:6-10). The Grossman et al. reference also discloses in addition to receiving to receiving a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 44 for access and

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display at a later time (Grossman et al. 8:21-24). However, the Grossman et al. reference does not specifically disclose storing first information element in a buffer and others in a memory wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data in the buffer of the digital set top box once the first information element is displayed. The Nathan et al. reference discloses button (1038) allows ordering of the selection which is then downloaded according to the above-described mode (Nathan et al. 6:66-67). The Nathan et al. reference also discloses a SPMM module allows the system to manage the musical song or video selections in the queue for their playback in the order of selection (Nathan et al. 8:22-24). The Nathan et al. reference also discloses audio and display buffers (Nathan et al.; Figure 2 "110,111"). The Nathan et al. reference discloses when the selection has been reproduced in its entirety, it is removed from the queue file and the system checks if there are others in the queue file. If there is another, the system immediately starts to play the selection (Nathan et al. 9:54-57). Accordingly, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. storing of interchannel messages with the Nathan et al. queue using a memory and buffer for the purpose of displaying interchannel messages in order of receipt and a method for memory management.

As to claim 33, the claimed wherein the digital set top box is further configured to replace those of the selected data sets representing the first one of the information elements in the buffer with at least some of the others of the selected data sets representing other information elements in the memory after displaying the first information element. Please see rejection of claim 32.

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6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grossman et al. (US 5,907,321) in further view of Picco et al. (US 6,029,045) and Kitsukawa et al. (US 6,282,713) and Tsuria (US 5,786,845)..

As to claim 7, the claimed wherein the first information element comprises data associated with the data stream information from the server. The Grossman et al. reference discloses the advertising information from cable headend 12 can be any information of any commercial value, such as a corporate logo, a trademark or a textual message. The advertising information can also be, for example, public service messages such as warnings against smoking, warnings against drinking while pregnant or reminders to immunize children (Grossman et al. 3:35-40). The Picco et al. reference discloses a server as discussed in the rejection for claim 23. However, the Grossman et al. reference does not disclose information element comprising data associated with data stream information. The Tsuria reference discloses a CATV message display during the changing of channels where preferably, the information message is associated with the channel. The channel may be a channel which is currently viewed. Alternatively, the channel may be a channel to which tuning is changed (Tsuria 2:1-4). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. interchannel messaging with the Tsuria information message associated with the channel for the purpose of providing the viewer with information related to the previously tuned or newly changed channel so that interchannel information received by the user is corresponds to programming previously watched or indicative of newly selected programming.



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*Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny Ma whose telephone number is (703) 305-8099. The examiner can normally be reached on 8:00 am - 6:00 pm (First Friday off).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5399 for regular communications and (703) 308-5399 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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July 12, 2003

  
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